

1. 9-06-66 W/T(d)/TAT(m)/EAP(w)/EMP(v)/T-2/EAP(t)/TAP(k)/T-1/TAT(f)/EMP(l)
 ACC NR: AP5025209 ETC(m) EM/JD/NA SOURCE CODE: UR/0030/65/000/009/0052/0056

AUTHORS: Kobrinakir, A. Ye.; Koliskor, A. Sh.; Levkovskiy, Ye. I.; Popov, V. Ye.; Sergeyev, V. I. 48

ORG: Institute of Machine Science, State Committee on Machine Construction under Gosplan SSSR and the Academy of Sciences, SSSR (Institut mashinovedeniya, Gosudarstvennogo komiteta po mashinostroyeniyu pri Gosplane SSSR i Akademii nauk SSSR) 41

TITLE: A self-adjusting system of programmed machine control 14

SOURCE: AN SSSR. Vestnik, no. 9, 1965, 52-56

TOPIC TAGS: self adaptive control, precision finishing, measuring instrument, control equipment, control system

ABSTRACT: Causes of production errors and means of avoiding them in the case of programmed metal parts manufacture are discussed. It is pointed out that many factors having a significant effect on the accuracy and productivity of work processes cannot be entirely accounted for in preliminary process programming and hence must be accounted for in a self-adjusting control system. Examples of the hard-to-control factors are geometric machining errors, heat and elastic deformation of machine units, and others. The principal feature of the self-adjustment mechanism is an "ability" to absorb information on the results of previous work and to make appropriate adjustments in the process control program for succeeding articles. An example is given of a

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self-adjusting program-controlled cutting device used in the production of blades for turbojet compressors. A sketch of the cutting configuration is shown in Fig. 1.

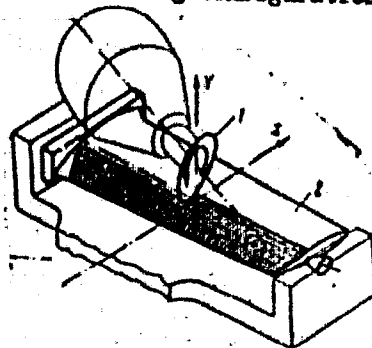


Fig. 1.

The milled piece 1 moves relative to the cutter 2 as directed by a program controlling motion of the cutter along the axes X and Y. The machined article passes from the milling tool shown to a measuring device which evaluates machining errors. From the measurements obtained, signals are generated. These cause adjustments to be made in the program controlling the next stage in the machining process for this article. A description and photographs of the major equipment used in the process are given. Experimental tests of the self-adjustment method resulted in marked reductions in machining errors in the case of the compressor blade cutting. Orig. art. has: 5 figures

SUB CODE: 09, 13/ SUBM DATE: none
Card 2/2

LEVITSKIY, N.I., doktor tekhn. nauk prof., otv. red.; BLAGONRAVOV, A.A., akademik, red.; BESSONOV, A.P., doktor tekhn. nauk, red.; DIMENTBERG, F.M., doktor tekhn. nauk, prof., red.; ZINOV'YEV, V.A., doktor tekhn. nauk, prof., red.; KOBRINSKIY, A.Ya., doktor tekhn. nauk, red.; CHERKUDINOV, S.A., doktor tekhn. nauk, red.

[Current problems in the theory of machines and mechanisms] Sovremennye problemy teorii mashin i mekhanizmov. Moskva, Nauka, 1965. 342 p. (MIRA 19:1)

1. Moscow. Gosudarstvennyy nauchno-issledovatel'skiy institut mashinovedeniya.

L 27923-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) BC

ACC NR: AP6017759

SOURCE CODE: UR/0380/65/000/004/0003/0015

AUTHOR: Kobrinaky, A. Ye. (Moscow); Tyves, L. I. (Moscow)

ORG: none

TITLE: Dynamics and stability of systems containing two impact pairs

SOURCE: Mashinovedeniye, no. 4, 1965, 3-16

TOPIC TAGS: control system stability, perturbation

ABSTRACT: As a rule, the construction of an adequate dynamic model of a vibroimpact system presents no difficulties, and its investigation permits the most important properties and behavior of the system to be studied. However, the mechanisms of machines, instruments and control systems may contain several colliding elements, as well as a large number of kinematic pairs whose construction causes certain nominal clearance values, and it is by no means always possible to construct a simple dynamic model enabling the most important properties of an initial system to be ascertained and studied. Accordingly, existing methods of investigating the dynamics and stability of vibroimpact systems are limited in this sense and require further development. The present article shows the possibility of generalizing developed methods for the analysis of dynamics and stability in the case of systems containing two impact pairs. The article begins by discussing questions involved in the construction of dynamic models

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ACC NR: AP6017759

of such systems, including the definition of the terms impact pair ("a set of two elements of a vibroimpact system which move with collisions"), open systems (systems which "contain elements entering into only one impact pair") and closed systems (systems "where each of the elements enters into two impact pairs"). The article then considers the dynamics of a three-mass symmetric system containing two impact pairs and, by the method of alignment using the apparatus of finite differences, investigates the stability of periodic motions in relation to small perturbations. Orig. art. has: 25 formulas and 10 figures. [JPRS]

SUB CODE: 13 / SUBM DATE: 02Apr65 / ORIG REF: 003

Card 2/2 BLS

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CIA-RDP86-00513R000723420001-2"

control systems.

KOBRINSKIY, G.D.

SOLOV'YEV, V.D., SELIMOV, M.A., KOBRINSKIY, G.D.

Local use of antirabic gamma globulin for the prophylaxis of
rabies. Vop. virus 3 no.2:115-116 Mr-Ap '58 (MIRA 11:5)

1. Otdel virusov Moskovskogo instituta vaktsin i syvorotok imeni
I.I. Mechnikova.

(RABIES, prevention & control
antirabic gamma globulin (Rus))

(GAMMA GLOBULIN,
antirabic gamma globulin, use in prev. & control of
rabies (Rus))

SALIMOV, M.; BOLTUNOV, L.; SEMENOVA, E.; KOBZINSKIY, G.; ZMUSKO, L.

The use of antirabies gamma globulin in subjects severely bitten by rabid wolves or other animals. J. Hyg. Epidem., Praha 3 no.2: 168-180 1959.

1. [Moscow I.I. Metchnikov Wissenschaftliches Forschungsinstitut für Sera und Impfstoffe]
(RABIES, immunology)
(GAMMA GLOBULIN)

NIKITENKO, A.A., KOBRINSKIY, G.D.

Fractionation and study of the specific activity of antirabies
 α - and β -globulins. Vop. virus 5 no.4:436-441 Je-Ag '60.
(MIRA 14:1)

1. Moskovskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok
imeni I.I.Mechnikova.
(RABIES) (GLOBULIN)

KOBRINSKIY, O.D.

Study of the properties of antirabies gamma globulin in local applications to wounds infected with the virus of street rabies. Vop. virus. 5 no. 6:660-665 N-D '60. (MIRA 14:4)

I. Moskovskiy nauchno-issledovatel'skiy institut vaktsin i syvoretok imeni I.I. Mechnikova.
(RABIES) (GAMMA GLOBULIN)

SELIMOV, M.A.; SEMENOVA, Ye.V.; KOBRINSKIY, G.D.; BOLTUTSIY, L.G.

Use of anti-rabies globulin in the treatment of patients with
postvaccinal paralysis. Zhur. nerv. i psikh. 60 no. 2:150-154 '60.
(MIRA 14:4)

1. Moskovskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok
imeni I.I. Mechnikova.
(PARALYSIS) (RABIES) (VACCINATION) (GAMMA GLOBULIN)

NIKITENKO, A.A.; KOBRINDKIY, G.D.

Preparation of an active fraction with reduced anaphylactogenic properties from antirabies serum. Vop. virus. 9 no.3:315-320
My-Je '64. (MIRA 18:1)

1. Moskovskiy nauchno-issledovatel'skiy institut vaktsin i sy-
vorotok imeni I.I. Mechnikova.

NECHAYEVSKIY, G.S., inzh.; TESLER, P.A., kand.tekhn.nauk; KOBRINSKIY, G.S.,
inzh.

Cassette technology of making panels in small diameter autoclaves.
Transp.stroi. 15 no.10:24-26 0 '65.

(MIRA 18:12)

1. Odesstransstroy (for Nechayevskiy). 2. Nauchno-issledovatel'skiy
institut betona i zhelezobetona Gosstroya SSSR (for Kobrinskiy).

LEVIN, R.I.; LEVASHOV, M.P.; NECHAYEVSKIY, O.S.; KRIZHEVSKIY, V.M.; TESLER, P.A.;
KOBRINSKIY, O.S.

Large-panel buildings of standardized autoclaved elements. Transp.
stroil. 15 no.5:23-26 My '65. (MIRA 18:7)

1. Odesstranstroy (for Krishevskiy). 2. Nauchno-issledovatel'skiy in-
stitut betona i zhelezobetona Gosstroya SSSR (for Kobrinskiy).

SAPELKIN, G.; KOBRINSKIY, I.

Of help to trackworkers ("Straightening out switch connections"
by A.T. Kragel'. Reviewed by G. Sapelkin, I. Kobrinskiy). Zhel.
dor.transp.36 no.5:95 My '55. (MIRA 12:5)

1. Nachal'nik slushby puti Kalininskoy dorogi, Smolensk (for
Sapelkin). 2. Glavnyy inzhener slushby puti, Smolensk (for Kobrinskiy).
(Railroads—Switches)
(Kragel', A.T.)

KOBRINSKIY, I.I. (st.Mga).

Change the techniques of track gauging. Put' i put.khos.no.9:45
Ag '57. (MLRA 10:9)

(Railroads--Track)

DOLININ, O.F.; KOBRINSKIY, I.I., insh.; PALEYEV, N.A.; CHURILOV, N.F.

Leveling out track located on heaving soils. Put' 1 put. khos. no.2:
6-7 P '58. (MIRA 11:3)

1. Starshiy dorozhnyy master Mginaskoy distantsei, Otktyabr'skoy dorogi
(for Dolinin). 2. Mashal'nik Mginaskoy distantsei, Otktyabr'skoy dorogi
(for Kobrinskiy). 3. Starshiy inzhener Mginaskoy distantsei Otktyabr'-
skoy dorogi (for Paleyev). 4. Glavnyy inzhener slushby puti Mginaskoy
distantsei Otktyabr'skoy dorogi (for Churilov).
(Railroads--Track)

KOBRINSKIY, I.I., inzh.

Maintenance and repair of switch boxes. Put' 1 put. khes. no.8:15-
16 Ag '58. (MIRA 11:8)

1. Nachal'nik distantsei puti, stantsiya Mga, Otkryabr'skoy dorogi.
(Railroads--Switches)

DOLININ, G.F.; KOBRIISKIY, I.I., insh.

Some remarks on switch boxes. Put' i put. khos. no. 2:30-31 P '59.
(MIRA 12:3)

1. Starshiy dorozhnyy master, st. Mga Oktyabr'skoy dorogi (for Dolinin).

(Railroads--Switches)

KOBRINSKIY, I.I., inzh.

Mechanizing track operations. Put' 1 put. khos. 5 no. 1:6-8 Ja '61.
(MIRA 14:5)

1. Nachal'nik Mginskoy distantzii, Oktyabr'skoy dorogi.
(Railroads—Maintenance and repair)

KOBRINSKIY, I.I., inzh.

Simplified deflectometer. Put' 1 put.khoz. 5 no.2:35 P '61.
(MIRA 14:3)

1. Nachal'nik distantsei put 1, stantsiya Mga, Oktyabr'skoy
dorogi.
(Railroads--Track) (Railroads--Equipment and supplies)

BUKANKOV, Ye.I.; KONKINSKIY, L.S.

Manufacture of spike heels from compatible macromolecular compounds. Koah.-obuv. prom. 7 no.7:25-26 J1 '65. (MIRA 18:8)

BUKANKOV, Ye.I.; KOBRINSKIY, L.S.; KRASNOV, B.Ya.; BRUK, M.B.

High heels for women's shoes made from polypropylene. Kozh.-
obuv, prom. 7 no.5:28-32 My '65. (MIRA 18:8)

ROZDOLSKIY, N. Ya

Novyy tip garmonicheskogo analizatora. M., vestn. metallopro., 4 (1938), 54-58.

SO: Mathematics in the USSR, 1917-1947

edited by Kurosh, A. U.

Markushevich, A. I.,

Rashevskiy, P. K.

Moscow-Leningrad, 1948

KOBRINSKIY, N.YE.

Methods and Instruments for Measuring Angular Velocities.

AN SSSR, (1941)

KORINSKI, N.Y.

Metody i pribory dlia izmereniia uskoreniia. Moskva, Izd-vo Akademii nauk SSSR, 1942, 80 p., illus.

"Nastoiashchaia monografiia iavliaetsia vtoroi chast'iu temy 'Metody i pribory izmereniia skorosti i uskoreniia.' "

Bibliography: p. 79-80.

Titel tr.: Methods and devices for measuring acceleration.

TJ1054.K6

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

KOBRINSKIY, N. Ye.

"Kinematic and Dynamic Errors in Plane Mechanisms." Is. Ak. Nauk SSSR, Otdel. Tekh. Nauk, No. 3, 1944

Report U-1556, 14 Nov 1951.

KOBRUNSKIY, N. Ye.

"Kinematic Errors in Plane Mechanisms with Low Couples Caused by Inaccuracy in Link Sizes." Iz. Ak. Nauk SSSR, Otdel. Tekh. Nauk, No. 6, 1944. Institute of Machine Studies, Academy of Sciences, USSR. Submitted 20 Mar 1944.

Report U-1556, 14 Nov 1951.

"APPROVED FOR RELEASE: 09/18/2001

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KOBINSKIY N. E.

PA 10755

USSR/Mathematics
Calculators

Aug/Sep 1946

"Present Status and Means of Developing the Calculation Technique," N. E. Kobinskiy, L. A. Lyusternik,
20 pp

"Vestnik Akademii Nauk SSSR" Vol XVI, No 8/9
Discusses role of calculation technique in development of contemporary science. Problems of applied mathematics and solution methods. Speeding up and automatization of calculation processes. Apparatus for carrying out mathematical operations and its accuracy. Apparatus for operations with discrete values. Includes formulae and diagrams.

10755

KOBRINSKIY, N. YE.

PA 52/4975

Inst/Academy of Sciences - Mathematics Jan 49
Engineering Sciences - Calculators

"In the Department of Technical Sciences, Academy
of Sciences USSR" 2 pp

"In Ak Nauk SSSR, Otdel Tekh Nauk" No 6

N. Ye Kobrinskiy and I. I. Artobolevskiy submitted
reports on activities of the Inst of Precise Mech
and Calculating Techniques. Institute has prepared
a number of works for introduction and practical
checking, including electrical integrators, calculat-
ing tables, and methods to solve mathematical problems
with analytical computing machines. Inst of Metal

52/4975

Inst/Academy of Sciences - Mathematics Jan 49
(Contd)

Nikolai A. A. Baykov is prepared to introduce a new
method and instrument for control of metallurgical
processes.

52/4975

KOBINSKIY, N. Ye.

PHASE X

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 702 - X

BOOK

Author: KOBINSKIY, N. YE.

Call No.: AP653645

Full Title: MATHEMATICAL MACHINES OF CONTINUOUS OPERATION.
FUNDAMENTALS OF CONSTRUCTION

Transliterated Title: Matematicheskiye mashiny nepreryvnogo
deystviya. Osnovy ikh ustroystva.

PUBLISHING DATA

Originating Agency: None

Publishing House: State Publishing House of Technical and
Theoretical Literature

Date: 1954

Editorial Staff

No. pp.: 447

No. of copies: 7,000

Contributors:

M. L. Bykhovskiy, I. M. Vitenberg, E. A.,
Gluzberg, Prof. V. N. Mil'shteyn, Ye. P. Novodvozhskiy,
Prof. G. M. Zhdanov, and D. N. Shakhshvarov.

PURPOSE AND EVALUATION: This book is not a textbook for university
students, but is rather intended for workers in research
laboratories who use analog computer machines for solution of
certain types of systems of ordinary and partial differential
equations and of algebraic and transcendental equations. This
book is written on the basis of new Russian, English and German
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Matematicheskiye mashiny nepreryvnogo deystviya. Osnovy ikh AID 702 - X
ustroystva.

publications dealing with the construction and methods of operation of analog computing machines. It is more extensive, better presented, and represents more research than the standard American publication by the Engineering Research Associates, High-Speed Computing Devices (McGraw-Hill, 1950) which was translated into Russian in 1952.

TEXT DATA

Coverage: This book deals with many questions relating to the construction of mathematical machines of continuous operation, particularly those designed by Russian scientists like Prof. S. A. Gershkorin of Leningrad Polytechnical Institute, I.S. Brun and V. A. Trapeznikov, Members of the Academy of Sciences, USSR, and scientists like N. V. Korol'kov, B. A. Volynskiy, V.P. Lebedyev, V. V. Ushakov, A. A. Fel'dbaum, V. S. Luk'yanov, Yu.Yu. Barilevskiy, B. V. Rameyev, V. N. Ryazankin, P. G. Khomenko, S. K. Neslukhovskiy and others. It includes detailed instructions for the use of analog computer machines, which are based mainly on mathematical analysis, differential equations and calculus of variations. Digital computer machines are omitted. Many papers

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Matematicheskiye mashiny nepreryvnogo deystviya. Osnovy ikh ustroystva. AID 702 - X

dealing with using machines for solution of mathematical problems written by Russian scientists such as Member of the Academy of Sciences of the USSR, A. N. Krylov (deceased), S. A. Lebedev and N. G. Bruyevich, and Prof. L. A. Lyusternik, K. A. Semendyayev, L. V. Kantorovich, I. N. Yanzhul, I. Ya. Akushskiy, M. R. Gaburin, I. I. Eterman, K. A. Karpov and others, are used in this book.

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Ch. VII Machines for Solution of Algebraic and
Transcendental Equations by Selection of
Roots

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References

No. of References: Total 84, 55 Russian (1904-1954)

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Facilities: None

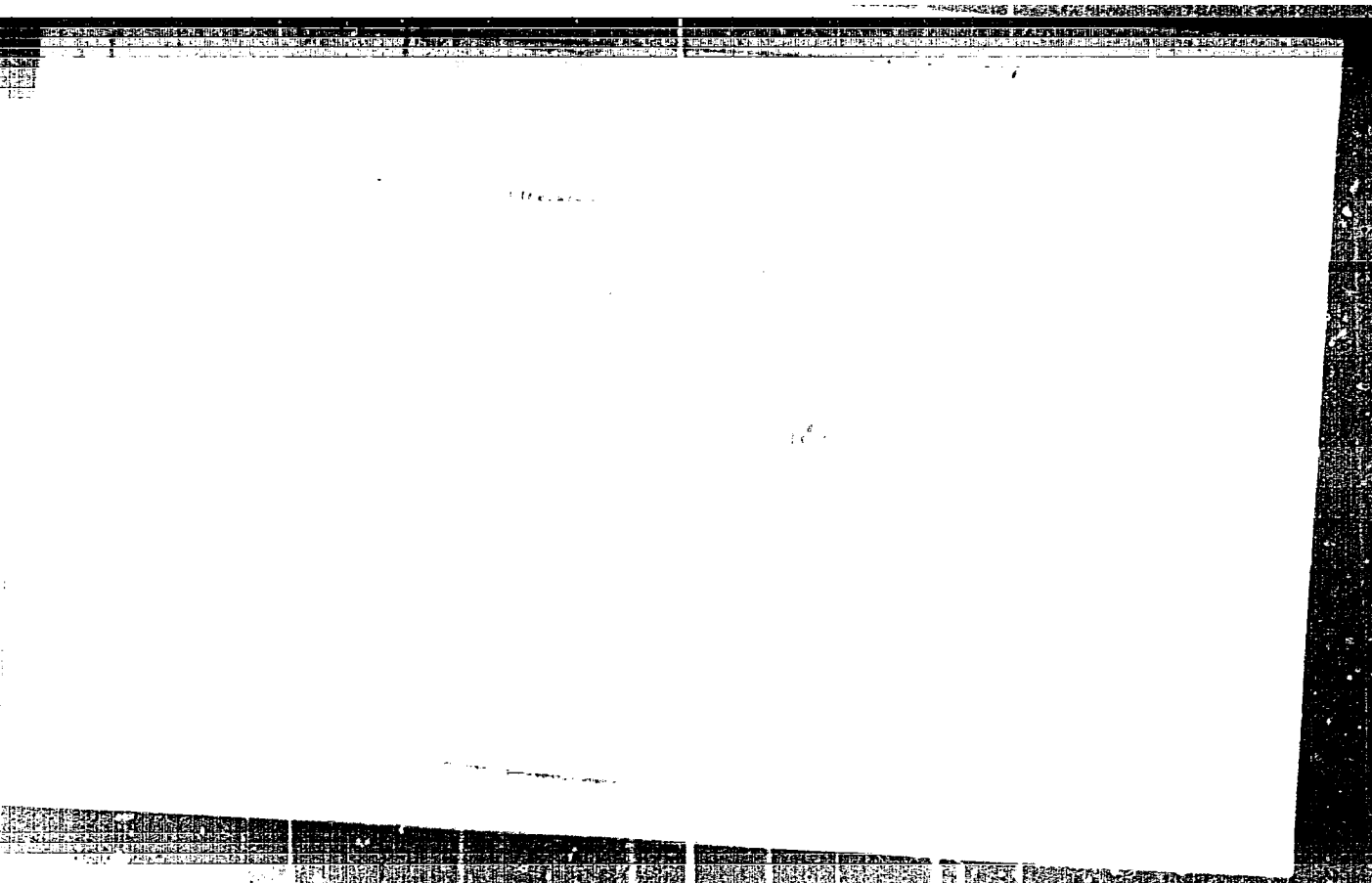
4/4

ROBINSON, H. Ye. and TRANITENBROT, B. A.

THE DEVELOPMENT OF A GENERAL THEORY OF "LOGICAL NETS",
O Postroyenií Obshchey Teorii Logicheskikh Sety, 1956.

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KOBRINSKIY, N.Ye., Professor, doktor tekhnicheskikh nauk.

The machine selects. Nauka i shizn' 23 no.4:21-26 Ap '56.
(Electronic calculating machines) (MIRA 9:7)

Isaevich
STERMAN, Israil' Isaevich; KOBINSKIY, N.Ye., prof., retsazent; SOLODOV,
A.V., kand.tekhn.nauk, red.; KOCHEROVA, O.F., red. izd-va;
SL'KIND, V.D., tekhn.red.

[Mathematical computers of continuous action] Matematicheskie
mashiny nepreryvnogo deistviya. Moskva, Gos.nauchno-tekhn.isd-vo
mashinostroit. lit-ry, 1957. 234 p. (MIRA 11:2)
(Electronic calculating machines)

KOBRINSKII, N. ~~YE~~.

"Use of Modern Computers for Economic Analysis," and (with B.A. Trakhtenbrot)
"Construction of a General Theory of Logical Systems," papers given at the
Conference of European Statisticians Meeting on Data-Processing Electronic Machines,
Geneva, 21-24 January 1957

4036051

KOBRINSKIY, M. YE.

"Logical Networks" (9 November 1956).

Paper presented at the Seminars on Cybernetics at Moscow University during the 1956-57 school year.

Problemy Kibernetiki, No. 1, 1958

KOBRIISKIY, N. YE.

"High-Speed Computer for Economic Analysis" (24 May 1957).

paper presented at the Seminars on Cybernetics at Moscow University during the 1956-57 school year.

Problemy Kibernetiki, No. 1, 1958

OKL'FOND, A.; KARANDYEV, K.; CHISTYAKOV, N.; SHUMILOVSKIY, N.; LEVIN, M.;
YEMAKOV, V.; KORINSKIY, N.

V.M. Mil'shtein; obituary. Elektrichestvo no.4:94 Ap '58.
(Mil'shtein, Viktor Samonovich, d. 1958) (MIRA 12:5)

AUTHORS: Kobrinskiy, N., Professor, Pekelis, V.

29-3-7/25

TITLE: A Dispassionate Partner (Besstrastnyy partner)

PERIODICAL: Tekhnika Molodeshi, 1958, V. 26, Nr 3, pp. 10-12 (USSR).

ABSTRACT: The first chess-playing automaton was built by the Hungarian mechanic Farkash Kempelen in 1769 and made a triumphant sweep all round the world. It burnt, however, in a fire in Philadelphia and the whole humbug was exposed. The Spanish engineer Torres Kevedo built a real automaton in 1890. Yet this automaton won only with a specific opening of the game. Recently, the chess-amateurs were excited by a sensational news. A new machine was sitting at the chess-board, viz. the electronic calculating-machine. It is known, in the age of progress - that the brains of a man are the backbone of any machine, no matter how clever it is. With every game, even the most simple one, opposing interests meet and the adversary tries to exploit to his own advantage the mistakes and errors committed by his antagonist. Mathematic tried to disclose the secret of the complicated competition between reasonable beings and to determine its rules. The mathematicians Neyman, Uold, and others succeeded approximately 30

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A Dispassionate Partner

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years ago in establishing the bases of the mathematical theory of playing. This is of great fundamental importance and of practical application in economics, strategy and other fields. In the theory of playing it is proved that the issue of a game of chess depends on both the opening and the selected strategy. Our attachment to chess, however, is based on the very fact that we do not know the mathematical solution of this game. The Belgian mathematician M. Kraychik tried to calculate, at least approximately, the possible number of variations. This number amounts to 2.10^{116} . The chess-amateurs must not get excited: if the whole population of the world would continuously play chess and make a move each second, not less than 10^{100} centuries would be necessary for playing the whole lot of variations. The game of the automaton is based on a regulating system permitting to make in every situation the better or the correct move. But there are also games the issue of which depends merely on a chance, e. g. roulette and lotto. In this case both men and machine must reply at random. Concluding, we want to mention a game in which the machine - what is amazing - proved to be the stronger adversary. This game is based upon a random misleading of the partner in which case the chances to win are fifty-fifty. The machine, however, discovered unconscious rules governing the questioning by men, and won. What is the purpose of

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A Dispassionate Partner

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all this? Is there any importance with respect to economy or sport? It may be assumed with reason that men will never seriously compete with machinery. Just as no competition is arranged between men and machine. Yet with testing the electronic calculating machine in playing, we discover new unexpected possibilities which most likely were not imagined by their inventors. There are 3 figures.

AVAILABLE: Library of Congress.

1. mathematical computers - Applications
2. Chess playing machines - USSR

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28(2)

PHASE I BOOK EXPLOITATION

SOV/2616

Kobrinskiy, Natan Yefimovich, and Viktor Davydovich Pekelis

Bystreysye mysli (Faster Than Thought) [Moscow] Izd-vo TsK VLSHM
"Molodaya gvardiya", 1959. 388 p. 90,000 copies printed.

Ed.: V. Fedchenko; Tech. Ed.: A. Kovalov.

PURPOSE: This book is intended for the general reader with some education but without a mathematical background.

COVERAGE: The book contains a discussion of the computer, its fundamental principles, and some of its applications, written in popular style and humorously illustrated. The authors discuss the history of counting and number systems and the development of modern computers from the time of primitive computing devices like the abacus. They also discuss the logic, basic components, and fantastic speeds of present-day computers. Advantages and disadvantages of computers are discussed. No personalities are mentioned. There are no references.

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Faster Than Thought

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AVAILABLE: Library of Congress

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lx/ml

11-25-59

KOBRINSKIY, N. YE. and PEKELIS, V. D.

Rystrye myli [Faster Than Thought], Publishing House of the Young Guard,
1959, 389 pages

KOBRINSKIY, N.

Mechanisation of economic calculations with the aid of electronic-
calculating machines. Vop. ekon. no.7:34-43 JI '59.

(MTA 12:11)

(Machine accounting)

28(2)

SOV/25-59-10-6/48

AUTHOR: Kobrinakiy, N.Ye., Professor, Doctor of Technical
Sciences

TITLE: The Electronic Computer Solves the Problem

PERIODICAL: Nauka i zhizn', 1959, Nr 10, pp 17-22 (USSR)

ABSTRACT: The article gives a survey on various types of computers, their use in industrial planning, in the population's supply and in book-keeping. The author reports on the historical development of computing machines and states that nowadays, more than 500 types of keyboard counting machines are being manufactured, beginning from the most simple adding machine up to the complicated machines widely used for carrying out economic accounts. In the Soviet Union, more than 3,500 computing stations and offices have been established which are equipped with keyboard computers and perforated computers. The author gives some examples of the application of computers in

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BOV/25-59-10-6/48

The Electronic Computer Solves the Problem

automobile industry planning and in national economy. However, the keyboard and perforated computers do not cope with hundreds of millions of computing operations for preparing the balance of production and consumption. For this purpose, electronic automatic computers have been developed which solve the most complicated problems in a short time. Computers performing 10 - 20,000 operations per second need 115-200 hours for computing the interrelationships embracing 800 various production units. The Pervyy gosudarstvennyy podshipnikovyy zavod (First State Bearing Plant) has to work out about 400,000 orders monthly, containing more than 25 million figures and to fill out more than 100 million short lines in documents. Investigations carried out in the Soviet Union have shown that the cost of accounts performed with the aid of electronic machines, is 10-15 times lower compared with the cost of these works carried out on

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80V/25-59-10-6/48

The Electronic Computer Solves the Problem

perforated counting machines. At enterprises with 15,-20,000 workers, the use of electronic computers saves about 1 million rubles annually only for the maintenance of the book-keeping accounting apparatus. Electronic machines are also widely used in the system of the Gosbank of the Soviet Union. For the solution of many economic planning problems, universal electronic computers can be used, e.g. the "BESM" (High-speed electronic computer), "Strela" and "Ural" type computers. They are intended for solving the various mathematical problems including problems which arise when accounting the links between various branches. For economic accounts, special computers with a very high productivity are being developed. The "electronic economist" will be able to account wages for 15-20,000 workers within 50-60 hours and to determine the prime cost of a complicated article and to compile the tech-

Card 3/4

A. I. Drell, Second International Congress on Cybernetics (3 March 1959); sections of the paper were published in the second issue of IEEE Transactions in the "Theory" section.

Memorandum of L. A. Feldman's book IBM (17 October 1959).

A. I. Drell and A. P. Shklovsky, Investigation of the Physiological Mechanism of a Complex Action in Man Under Imperfect Conditions (5 October 1959).

A. I. Drell, Report on the Mission to the USSR (15 December 1959).

A. I. Drell, and V. Y. Zhukovskiy, Problem of the Systematization of the Basic Concepts of Cybernetics (28 November 1959).

A. I. Drell, Conference on Automation in Railroad Transportation (12 December 1959).

A. I. Drell, Issues of Developing the Structure of Computers (26 December 1959).

A. P. Shklovsky, Report on the Cybernetics Symposium in London (26 December 1959).

A. I. Drell, Certain Problems of the Structure of Living Systems (13 February 1959).

A. P. Shklovsky, Cybernetic Problems in Medicine (22 February 1959).

A. I. Drell, The Role of Substantial Forms of Thought and Speech of Man in the Development of Electronic Digital Computers (13 March 1959).

A. I. Drell, Electrical Simulation of Certain Self-Adaptive Systems (10 April 1959); a part will be published in IEEE Transactions, n. 1.

A. I. Drell, A. A. Shklovsky, and V. Y. Zhukovskiy, Report on the Second Conference on International Legislation (26 April 1959), n. 1, in 27-28 of this issue.

Report presented at the Moscow University Institute on Cybernetics during 1958-59 fiscal year. (under direction of A. I. Drell)
(appeared in Scientific Information, n. 1, 1960, p. 27)

Lebedevskiy, N.Ye.

KOBRINSKIY, Natan Yefimovich; TRAKHTENBROT, Boris Avraamovich;
BIKUKOV, B.V., red.; PURASHOVA, N.Ya., tekhn. red.

[Introduction to the theory of finite automata] Vvedenie v
teoriyu konechnykh avtomatov. Moskva, Gos.izd-vo fiziko-
matem. lit-ry, 1962. 404 p. (MIRA 15:5)
(Automatic control) (Electronic calculating machines)
(Electronic digital computers)

ANISIMOV, B.V.; CHETVERIKOV, V.N.; KOPITSKIY, N.Ye., doktor tekhn.
nauk, prof., retsentsent; TAKHVANOV, G.I., kand. tekhn. nauk,
retsentsent; DOBROGURSkiY, S.O., doktor tekhn. nauk, red.;
YELISEYEV, M.S., red. ind-va; EL'KIND, V.D., tekhn. red.

[Fundamentals of the theory and design of digital computers]
Osnovy teorii i proektirovaniya tsifrovyykh vychislitel'nykh
mashin. Moskva, Mashgis, 1962. 431 p. (MIRA 15:10)
(Electronic digital computers)

KOBRINSKIY, Natan Yefimovich; PEKELIS, Viktor Davidovich;
LIVANOV, A., red.; YEGOROVA, I., tekhn. red.

[Faster than thought] Bystrye mysl'. Moskva, Molodaia
gvardiia, 1963. 469 p. (MIRA 16:11)
(Cybernetics)

ANISIMOV, B.V.; CHESTVERIKOV, V.N.; KOBRINSKIY, N.Ye., doktor tekhn.
nauk, prof., retsenzent; SMOLOV, V.P., doktor tekhn. nauk
prof., retsenzent

[Principles of the theory and design of digital computers]
Osnovy teorii i proektirovaniya tsifrovyykh vychislitel'-
nykh mashin. 2., ispr. i dop. izd. Moskva, Mashinostroenie, 1965. 483 p. (MIRA 18:3)

MOGILEVICH, S.; KOBRINSKIY, S.

Fiber made from wool wastes. Prom.koop.no.8:28-29 Ag '55. (MLRA 9:1)

1.Tekhnicheskii rukovoditel' arteli imeni 30-letiya Moskovskogo
Soveta (for Mogilevich).2.Nachal'nik tsukha vtorichnogo syr'ya (for
Kobriniski)

(Wool industry)

ALEKSANDROV, P.; BUGAYEV, G.; KONRINSKIY, S.

Conference in factories. NTO 2 no.7:58 J1 '60.
(MIRA 13:7)

1. Uchenyy sekretar' Rostovskogo oblastnogo pravleniya Nauchno-tekhnicheskogo obshchestva mashproma (for Aleksandrov).
2. Starshiy inzhener golovnogo Spetsial'nogo konstruktorskogo byuro (for Bugayev).
(Machinery industry—Technological innovations)

ASHKASOV, N.I.; KOBRINSKIY, V.I.

Improving the quality of maintenance and repair. Put' 1 put.khos.
9 no.6:13-15 '65. (MIRA 18:6)

1. Nachal'nik Opytnoy putevoy mashinnoy stantsii No.1, stantsiya
Reshetnikovc, Okt'yabr'skoy dorogi (for Ashkasov). 2. Glavnyy
inzh. Opytnoy putevoy mashinnoy stantsii No.1, stantsiya
Reshetnikovo, Okt'yabr'skoy dorogi (for Kobrinskiy, .

L 25713-66 EWT(1) RO

ACC NR: AP6005886 (A)

SOURCE CODE: UR/0352/65/000/010/0030/0031

AUTHOR: Kobrits, G. (Senior engineer in fertilizer and poison-chemical commerce)

ORG: All-Union Association "Soyuzsel'khoztekhnika" (Vsesoyuznoye ob'yedineniye "Soyuzsel'khoztekhnika")

TITLE: Work with poisons is harmless if protected

SOURCE: Kolkhozno-sovkhoznoye proizvodstvo, no. 10, 1965, 30-31

TOPIC TAGS: agriculture, chemical protective clothing, gas mask

ABSTRACT: The protection of agricultural workers dealing with poisonous and toxic materials is discussed. Smoking, eating, drinking are allowed only in rooms located at least 100 m away from the area where chemicals are used. Before eating, the protective clothing must be removed and hands and face washed. Only men 18 to 55 years old and women 18 to 50 years old are admitted to work. Special dust-tight cotton clothing, "KR" gauntlets, rubber shoes, respirators of U-2K and "Lapostok-200" (ShB-1) types, face guards with goggles of PO-3 and PO-1 types were prescribed for work with DDT, TMTD-50 and other disinfectants. Acid-proof clothing, "374" rubber gloves, PO-3 goggles and F-46K respirators

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ACC NR: AP6005886

3

are to be used in handling polychlorpinene, chlorophos, metaphos, etc. In conducting fumigation, special gas-masks of industrial type or of GP-4U civil type must be employed. It was mentioned that a new respirator of RU-60 type will be produced in 1966. The handling and preservation of respirators was briefly discussed and the orderly use of clothing, gloves, goggles and other protective articles was explained. The duration of the workday must not exceed 6 hours in case of poison-bearing products and 4 hours when dealing with high-toxic chemicals. Orig. art. has: 2 photos showing the U-2K and R-60 respirators.

SUB CODE: 0602 / SUBM DATE: None / ORIG REF: 000 / OTH REF: 000

Card 2/2-10

ACC NR: AP6031981

mask with an adjustable elastic headband and plastic frame containing a disposable polymer-fiber filter. It has vents for inhalation and exhalation, the latter serving also to expel excess moisture. All parts in the mask are replaceable. This mask is also light in weight, has resistance of not more than 3.5 mm (H₂O) to respiration, and is 99.9% effective in removing fine dust from the air. It is recommended for mass use; the filter lasts for 30 days, on the average, and the respirator for one year. The third half-mask, the U-2K respirator, includes vents for inhalation and exhalation, a headband, and nosepiece. The exterior of the mask is of porous polyurethane and the interior, of thin polyethylene film. These two layers are separated by an effective polymer-fiber filter. Excess moisture within the mask is eliminated through the exhalation vent. The headband is elastic and adjustable. This mask has a life expectancy of 30 days, depending on conditions, has not more than 6 mm (H₂O) resistance to respiration, and is 99.9% effective. These respirators protect against dust only. The RU-60 respirator (not described) is suggested for use with mercury-containing compounds. The importance of proper mask fit is stressed; the U-2K and Y-62Sh devices both come in three sizes. Cleaning, proper use, and replacement filters and parts for all three are discussed.

[WA-50; CBE No. 12]

SUB CODE: 06/ SUBM DATE: none/

Card 2/2

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723420001-2

Page 10 of 10

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723420001-2"

KOBRLE, V.

Czechoslovakia/Analytical Chemistry - General Questions, Q-1

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61799

Author: Kobrle, V., Zahradnik, R.

Institution: *Nene Katan byg. prace., Prague*

Title: Partition Paper Chromatography of Higher Fatty Acids. II. Separation of Unsaturated Fatty Acids

Original

Periodical: Rozdelovaci chromatografie vyssich mastnych kyselin na papire. II. Deleni nenasyzenych mastnych kyselin, Chem. listy, 1954, 48, No 11, 1703-1705; Czech

Abstract: To study the separation of unsaturated and saturated acids by the method of partition paper chromatography vicinal hydroxy- and halogen derivatives of unsaturated acids were prepared and investigated. Values of Rf of dihydroxy-acids differ little from values for saturated acids. Dihalogen derivatives (prepared by treatment with Br₂) have Rf values lower by 0.15-0.28 units than those of unsaturated acids. Listed are Rf values for unsaturated acids

Card 1/2

KoBRLe, ~~Zagradnik~~

CZECHOSLOVAKIA/Analysis of Organic Substances.

0-3

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 19704

Author : Kobrie, Zagradnik.

Inst

Title : Distributive Chromatography on Paper of Higher Aliphatic Acids.

Orig Pub : Sb. chekhosl. khim. rabot, 1955, 20, No 1, 262-264

Abstract : See RZhKhim, 1956, 58490, 61799.

Card 1/1

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"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723420001-2

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723420001-2"

KOBRLE V.

EXCERPTA MEDICA Sec 5 Vol 12/8 General Path. Aug 59

2381. INVESTIGATIONS OF FIBROPLASIA. X. CHANGES OF SOME FRACTIONS OF COLLAGEN PROTEINS OF THE LUNGS DURING AGEING AND DURING THE DEVELOPMENT OF EXPERIMENTAL SILICOSIS IN RATS - Studie o fibroplazii X. Změny některých frakcí kolagenních bílkovin plic během stárnutí a během vývoje experimentální silikózy u krys - Koblík V. and Chvapil M. Úst. Hyg. Práce a Chor. a Povolání, Praha - PRACOV. LÉK. 1958, 10/4 (308-312) Graphs 2 Tables 4

The total hydroxyproline, hydroxyproline of scleroproteins, and hydroxyproline of collagen proteins soluble in an alkaline medium were estimated. In some instances a marked drop of soluble collagen proteins, which in 18-day-old rats account for 50%, in adult rats for 20% of the total hydroxyproline. Collagen soluble in a citrate buffer (procollagen) accounts for about 1% of the total hydroxyproline in the lungs and its amount also decreases with age. However, the amount of scleroproteins (colastromin and elastin) in the lungs of rats of different age and in the lungs of rats with various degrees of experimental silicosis constantly increases with age. After a single intratracheal application of SiO_2 (50 mg., 2 μ) after 2 weeks, but particularly after 30 days, a marked increase of collagen proteins soluble in an alkaline medium was noted, while the changes of scleroproteins during the same period were insignificant. Naturally, the increase of alkaline-soluble collagen proteins is not histologically demonstrable in this early stage of silicosis though it is the period when the mesenchyme of the lungs is most active. In later phases of the development of experimental silicosis, a decrease of soluble collagen proteins to normal values has been observed while the amount of scleroproteins increases more markedly. It was proved that scleroproteins from the lungs of several days' old rats, prepared by repeated extraction with 0.01 N-NaOH have a significantly lower percentage hydroxyproline content while the total amino-acid content remains the same. It is evident that the amount of hydroxyproline in the molecule of the collagen does not depend only on the phylogenesis but changes also during the ontogenesis.

Dvořák - Ostrava (V. 15, 30)

Kobrel, V.

CZECHOSLOVAKIA: Analytical Chemistry. Analysis of Organic Substances.

E

Abstr Jour: Ref Zhur-Khim., No 9, 1959, 31113.

Author : Zahradnik, R., Kobrel, V.

Inst :

Title : Interaction of Amino Acids with Carbon Disulfide.
V. Paper Chromatography and Iontophoresis of Dithio-
Carbamino Carboxylic Acids.

Orig Pub: Collect. czechosl. chem. comun. 1958, 23, No 8,
1585-1587.

Abstract: No abstract.

Card : 1/1

KOERLE, V., CHVAPIL, M.

The amount of ultrafiltrable and collagen-bound hydroxyproline in different organs of the rat during aging. *Physiol. bohemoslov.* 11 no.3: 243-248 '62.

1. Institute of Industrial Hygiene and Occupational Diseases, Prague.

(PROLINE chemistry) (COLLAGEN metabolism)
(AGING)

CHVAPIL, M.; KOBRLE, V.; CHUCHALOVA, B.

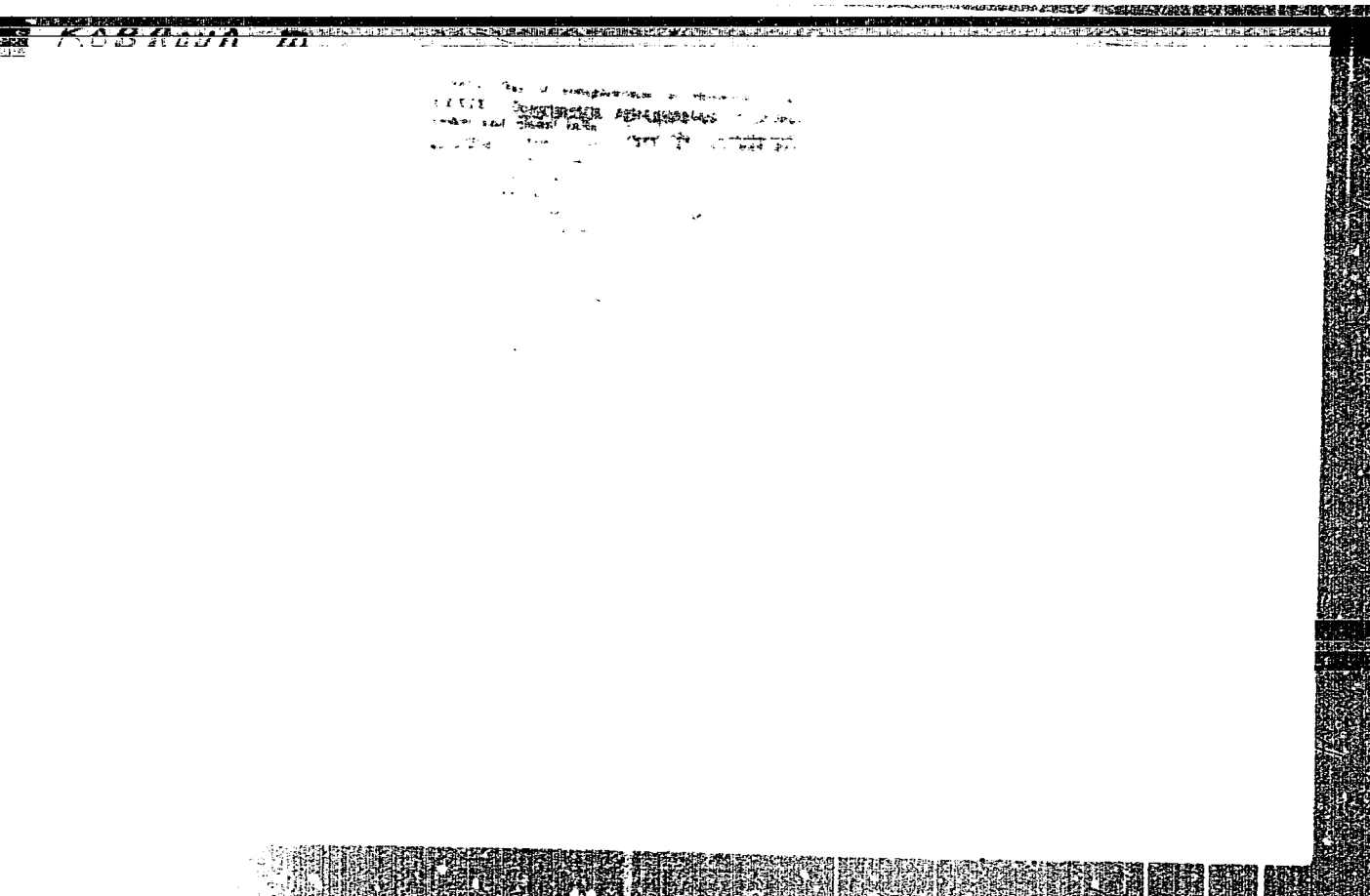
Ultrafiltrable hydroxyproline in the blood serum as the index of the degree of collagen metabolism. Prac. lek. 14 no.2:84-87 Mr '62.

1. Ustav hygieny prace a chorob z povolani v Praze, reditel prof. J. Teisinger.

(COLLAGEN metab) (PROLINE rel cpds)

"APPROVED FOR RELEASE: 09/18/2001

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APPROVED FOR RELEASE: 09/18/2001

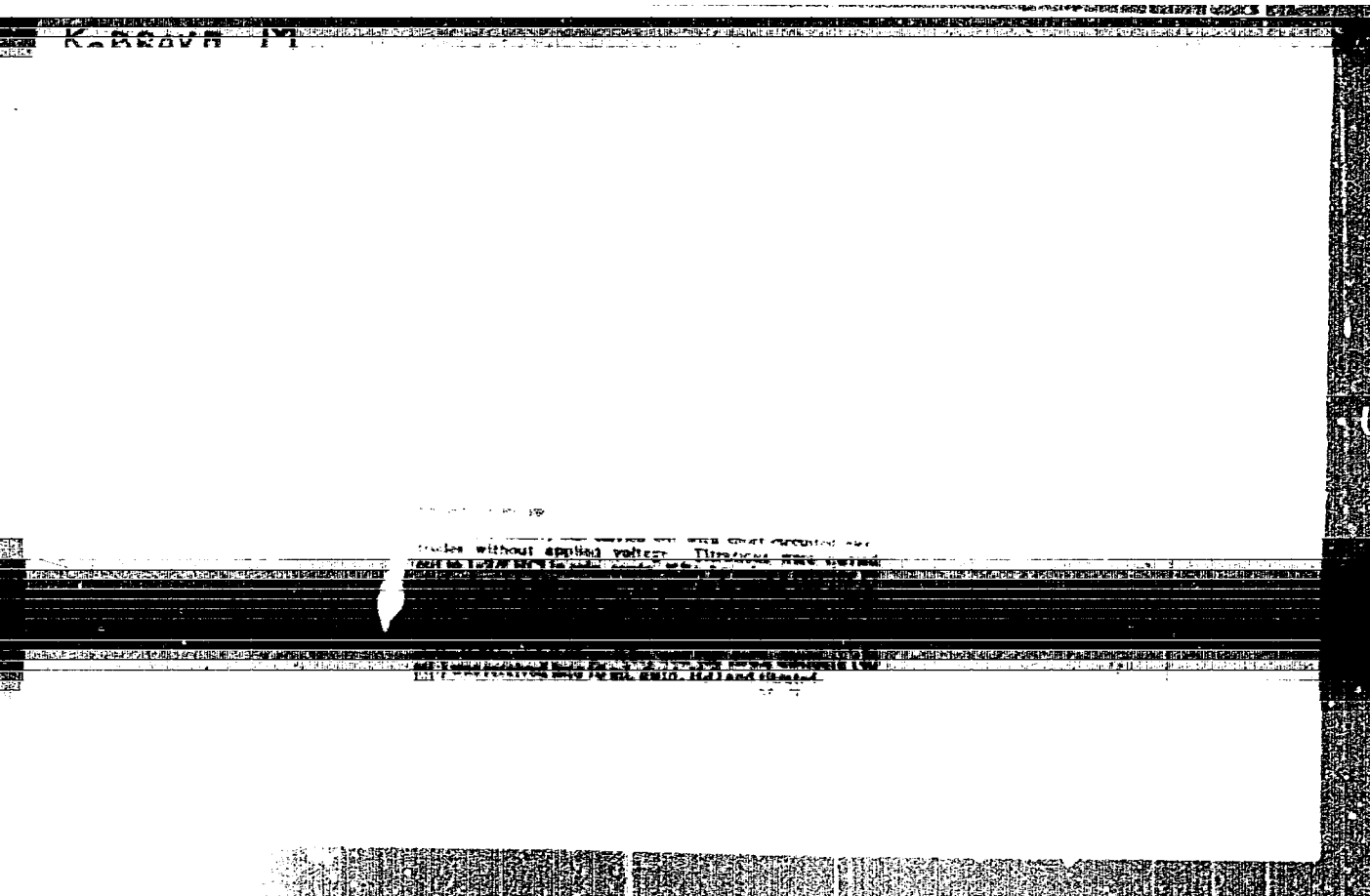
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CZECH

9. 1967 Determination of magnesium in the presence of calcium by titration with 2-hydroxyquinoline
 15. Reference: Chem. Zvesti 1964 48 9: 1167-1170

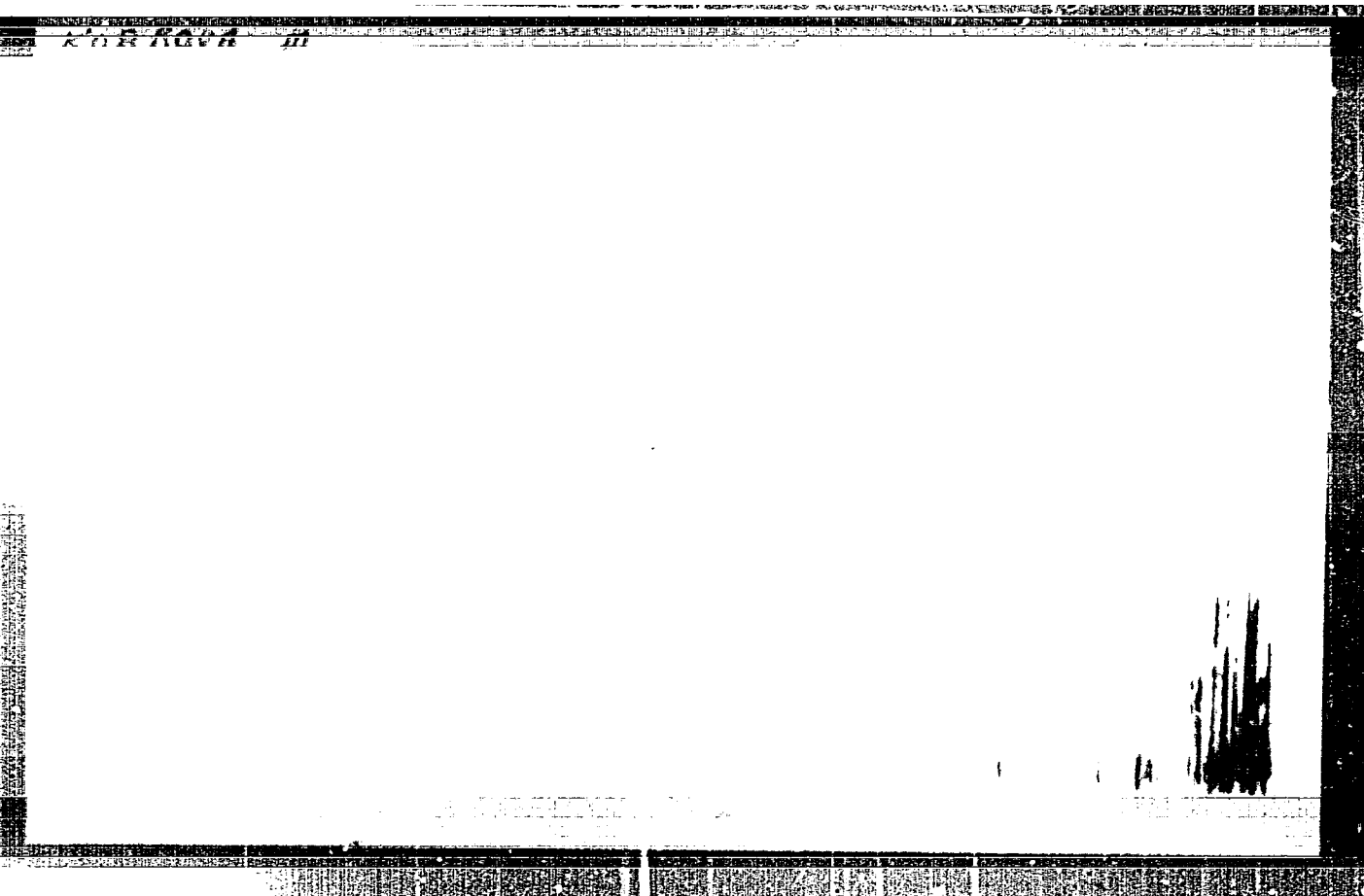
The volumetric method for the determination of Mg unaffected by the presence of even large excesses of Ca is standard with 2-hydroxyquinoline as a color indicator. It is used with 2-hydroxyquinoline as a color indicator. It has been applied to the determination of Mg in mineral waters. Procedure: The sample of mineral water (100 ml) is treated with 1 N NH_4Cl 10 ml, a buffer with NH_4Cl 4 ml and 1% percent of NH_4Cl 100 mg, or 1 liter of water 10 ml, and with the indicator to give a clear wine red color, and titrated with 0.1 N Ca^{2+} . The end point is marked by a color change from red to blue. This color change persists when the solution is heated and treated with an additional 1 ml of the buffer. To determine Mg in mineral waters with a high content of Mg a sample 10 g is diluted to 100 ml, 1 N NH_4Cl 4 ml and the buffer 15 ml are added and the procedure is continued as above. The addition of more indicator during the titration is recommended.

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APPROVED FOR RELEASE: 09/18/2001

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KOBROVA, M.

3

Determination of boron in the presence of calcium with 8-quinolineol. M. Kobrova (Petrovskaya, Czechoslovakia). Collective work. Chem. Commun. 19, No. 1, 17-20 (1955) (in German).—See C.A. 49, 12196c.
Nils C. Nielsen

MSI

KOBROVA, M.

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723420001-
CZECHOSLOVAKIA/Cosmochemistry, Geochemistry, Hydrochemistry D

Abs Jour : Ref Zhur - Khiniya, No 3, 1958, No 7494

Author : M. Kobrova

Inst : NOT Given

Title : Classification and Chemical Analysis of Mineral Water from the Hole "81" in Libverde

Orig Pub : Fysiatr. vest., 1957, 35, No 3, 160-161

Abstract : A brief report on the properties and composition of water from a hole 65 m deep. Output 43 thousand liters, temperature 100, density (at 20°) 1.0013, reaction feebly acid, pH 5.8. Composition (in mg/l): Li traces, Na 53.37, K 13.27, Mg 90.96, Ca 130.2, Sr 1.419, Mn 0.049, Fe 23.84, total of cations 317.6, Cl 8.78, SO₄ 10.38, HPO₄ 0.483, HAsO₄ 0.625, HCO₃ 1050, anions total 1070, H₂SiO₃ 92.23.

Card : 1/1

ALLEN, K. L. C. C.

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: ~~not given~~

Affiliation: Balneology Research Institute / Vyzkumny ustav balneologicky / Director
/ Průf. K. PRŮROVSKÝ; Prague

Source: Prague, Fysiatrický Vestník, Vol 39, No 5, Oct 1961; pp 265-272

"Colorimetric Determination of Rubidium and Cesium in Mineral Waters"

670 101643

KOERUS, J. (Prerov)

Budapest Industrial Fair 1962. Jemna mech opt 7 no.9:295-296
8 '62.

KOBYK, Mieczyslaw

Some notes on the factory fund. Praca zabesp spol 4 no.2:11-14
'62.

KORZYK, Mieczyslaw

Distribution principles for the factory labor fund in the light of the resolutions of the 16th Plenum of the Central Council of Trade Unions. Praca zabesp spel 5[i.e.4] no.6:48-50 Je '62.

CERNACEK, J.; KOBSA, K.; PODIVINSKY, F.

Use of paired activity of the hemispheres in rehabilitation of hemiplegics. Cesk. neurol. 27 no.1:17-23 Ja'64.

1. Oddelenie klinickej elektrofyziolgie Ustavu experimentalnej mediciny SAV v Bratislave a Neurologicka klinika Lekarskej fakulty UK v Bratislave.

*

L 3523-66 ENT(1)/ENP(m)/T IJP(c)

ACCESSION NR: AT5022294

UR/3138/65/000/329/0001/0011

AUTHOR: Zakharov, V. I.; Kobsarev, I. Yu.

TITLE: Spin precession in gravitational field

SOURCE: USSR, Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii. Institut teoreticheskoy i eksperimental'noy fiziki. Doklady, no. 329, 1963. Spin precession in gravitational field, 1-11

TOPIC TAGS: electron spin, gravitation field, quantum electrodynamics

ABSTRACT: It is shown that the precession frequency of the electron spin may be obtained by using the linearized interaction energy for the electron

$$L_{int} = - 1/2 h_{ik} T_{ik} \quad (1)$$

where $g_{ik} = \delta_{ik} + h_{ik}$, and T_{ik} is the energy momentum tensor. It is explained how this precession is contained in the iterated Dirac equation. The equality of the precession frequencies of the electron spin and of the classical gyroscope is shown to follow from the linearized interaction as well as from the iterated Dirac equation in a four-leg formulation. The discussion is divided into (1) precession of electron at rest, (2) spin precession of a rotating body in gravitational field, and (3) derivation of spin precession equation from the iterated Dirac equation.

Card 1/2

L 3523-66

ACCESSION NR: AT5022294 ⁴⁴ 65

"Thanks are due to L. B. Okun for the discussion of this paper." Orig. art. has:
21 formulas.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: NF

NO REF SOV: 002

OTHER: 018

PC

Card 2/2

KOBSEYEV, A. A.

USSR/ Electronics - Automatic radio switches

Card 1/1 Pub. 133 - 16/19

Authors : Vinokurov, B. M., technician; and Kobseev, A. A., radio mechanic

Title : Automatic switching for the RK-0.5 transmitter-receiver

Periodical : Vest. svyazi 4 (181), page 30, Apr 1955

Abstract : A device for the automatic switching of the RK-0.5 radio receiver-transmitter is described. A circuit diagram of the set is given. The automatic switch consists of a series of relays.

Institution :

Submitted :

GRIGOR'YEV, V.V.; ZAKREVSKIY, V.S.; BURNIKH, V.S.; KOBTSEV, A.P.; TKACHENKO, M.P.

Hydraulic efficiency of Donets gas pipelines. Gas. delo no.8:
25-29 '64. (MIRA 17:9)

1. Donetskoye upravleniye magistral'nykh gazoprovo'dov i Ukrainskiy
filial Vsesoyuznogo nauchno-issledovatel'skogo instituta prirodnogo
gaza.

BURNIKH, V.S.; KOBTSSEV, A.F.

Enthalpy of Shebelinka and other natural gases. Gas. prom. 9
no.3:7-12 '64. (MIRA 17:9)

KOBTSEV, M. F.

Kobtsev, M. F. - "Investigation of Fodder Regions of Various Types in Terms of Highly Productive Cows of the Alatau Breed." Min Higher Education USSR. Alma-Ata Zooveterinary Inst. Alma-Ata, 1956 (Dissertation for the Degree of Candidate in Agricultural Sciences).

So: Knizhnaya Letopis', No. 10, 1956, pp 116-127

KOB'TSEY M.F.

USSR / Farm Animals. General Problems.

Abstr Jour : Ref Zhur - Biologiya, No 3, 1977, No. 21193

Author : Kob'tsey, M.

Inst : Not given

Title : Feeding Cattle with Corn

Orig Pub : S. Kh. Kazakhstan, 1977, 10-10, 20-25

Abstract : It was determined in experiments which investigated digestibility and balance of N, Ca, P during the stall period when feeding consisted of 18 c of hay, 36 c of corn silage, 11 c of grown brewer's yeast, 8 c of concentrates, 22 c of juicy feeds per cow that Ca and P balance were positive in cows, but that the N balance was negative. It was determined in experiments in which pregnant and nursing sheep were fed corn silage that it is possible to feed them silage in the amount of 30 percent of the general nutritional

Card 1/2

KOBTSEV, P.F., veterinarnyy vrach

Ridding a poultry farm of tuberculosis. Veterinariia 40
no.10:5-6 0'63. (MIRA 17:5)

1. Kolkhoz imeni Il'icha, Belovskogo rayona, Kemerovskoy
oblasti.

BLANK, S.M.; KOBTSEV, Ye.Yu.; YURCHENKO, V.I.

Elements made of cement wood in ground-level structures of
main pipelines. Stroil. truboprov. 7 no.10:29-30 0 '62.
(MIRA 15:11)

1. Trest Promstroymaterialy, Lyubertsy.
(Lightweight concrete) (Insulating materials)
(Pipelines--Buildings and structures)

86808

9/185/60/005/001/007/018
A151/A029

24.7800 (1035, 1142, 1162)

AUTHORS: Nekrasov, M.M.; Kobtsev, Yu.D.

TITLE: Non-Linear Ferro-Electric Systems with Various Curie Temperatures

PERIODICAL: Ukrayins'kyy Fizychnyy Zhurnal, 1960, Vol. 5, No. 1, pp. 75 - 78

TEXT: In the binary systems, the Curie point is not expressed very sharply (there is only a Curie zone). This shows that an admixture of a ferro-electric component (i.e., BaSnO_3) decreases the ferro-electric properties (Refs. 3, 4,). Therefore, ternary systems were taken for investigation in this work. ($\text{Ba}(\text{Ti}, \text{Sn}, \text{Zr})\text{O}_3$). On the basis of the ternary systems there are more possibilities to produce a sharply nonhomogeneous inner field by means of selecting components which compensate the voluminal electro-striction in the case of a more favorable packing of the system. This article investigates the properties of ternary systems based on $\text{Ba}(\text{Ti}_{0.75}, \text{Sn}_{0.1}, \text{Zr}_{0.15})\text{O}_3$, which under various conditions and procedures of burning can yield a maximum of the dependence $\xi = \gamma(t^\circ)$ from -40 to $+3^\circ\text{C}$. Even two temperature maxima of ξ are possible. In this case (for a variety of samples) the first maximum will be at a temperature of $-40 \pm -20^\circ\text{C}$, the second at $+400 \pm +410^\circ\text{C}$. Apart from this, a certain increase in ξ was noted

Card 1/3

86808

S/185/60/005/001/007/019

A151/A029

Non-Linear Ferro-Electric Systems with Various Curie Temperatures

at $\pm 80^{\circ}\text{C}$. In a lower temperature maximum ϵ reaches a value of the order of 1,500. At 500°C , ϵ reaches a value of the order of 1,750. At a higher temperature the dielectric constant starts dropping. The dependence of dielectric constant on temperature was determined on a thermo-dielectric recorder by measuring the current which passes through the sample at a frequency $f = 1,000$ c/s. The ferro-ceramic samples were placed in a TГ-02 ("TH-02") type kiln and fastened to stainless steel electrode holders. The measurements of ϵ and $\text{tg } \delta$ [ABSTRACTOR'S NOTE: $\text{tg } \delta$ is the tangent of the angle of dielectric losses] within the field of low temperatures were effected by a resonant method on the bridge RFT 1002. The dielectric hysteresis was observed in samples between the upper and the lower Curie point within the whole temperature range. According to the oscillograms of the dielectric hysteresis a number of characteristic values were determined: effective capacitance, differential capacitance, differential nonlinearity, nonlinearity of saturation and the effective nonlinearity. The investigation of the reversible dependence of the dielectric constant of the ternary system was carried out within a wide range of sound frequencies up to $2 \cdot 10^4$ c/s. The highest change in the reversible dielectric constant (Ref. 2) at a temperature of $18 \pm 20^{\circ}\text{C}$ was observed at the tension of the alternating field amounting to 2,500 v/cm. On the

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